

Astrophysics With Infrared Surveys: A Prelude to SIRTf

June 22-24, 1998

California Institute of Technology

<http://sirtf.jpl.nasa.gov/surveys>

Dear Colleague:

Well into the "Decade of the Infrared," we are at long last beginning to reap the fruits of our labors with impressive new data. More than a decade after IRAS, infrared astronomy is in the midst of an unprecedented era. ESA's *Infrared Space Observatory* (ISO) is dramatically illustrating the value of multi-instrument, space-based facilities, and scientists worldwide can expect to mine the archives long after the cryogen expires later this year. The *Two-Micron All-Sky Survey* (2MASS) and *Deep Near-Infrared Survey* (DENIS) are both underway, with the resultant data likely to have the impact and utility of their Palomar optical analogs. The *Wide-Field Infrared Explorer* (WIRE), scheduled for launch later this year by NASA, will conduct various surveys intended to address specific questions about starburst galaxies and galaxy evolution. In addition to these programs, other valuable infrared datasets will shortly be coming into the public domain, including those from Japan's *Infrared Telescope in Space* (IRTS) and from the SPIRIT-III infrared experiment aboard the *Midcourse Space Experiment* (MSX) mission.

Finally, the *Space InfraRed Telescope Facility* (SIRTf), the fourth element of NASA's "Great Observatories" program, is poised to begin formal development in April. Launch is scheduled for December 2001, and the first call for observing proposals will be issued in only two years. The combination of unparalleled sensitivity, very high efficiency, and operational simplicity makes SIRTf a powerful tool for the entire community. As we continue to digest data from the above programs, it is an appropriate time to (re)assess where we stand in state-of-the-art knowledge in those astrophysical topics for which SIRTf will likely make significant contributions. At the same time, it is time for the community to start considering how it can best take advantage of the new tool called SIRTf, and a unique opportunity to propose very large investigations – the SIRTf Legacy Science Program.

SIRTf and IPAC are pleased to host the conference, "*Astrophysics with Infrared Surveys: A Prelude to SIRTf*," to be held at the California Institute of Technology in Pasadena on June 22-24, 1998. This international conference will promote discussions of infrared surveys and the scientific discoveries that follow from these "first looks." The three-day conference is organized such that each morning is devoted primarily to survey programs and missions -- past, present and future. Afternoon sessions will provide a deeper exploration of some of the science areas where SIRTf can make major impacts in our understanding of the cosmos. In addition, a panel discussion on the third day will explore how infrared surveys can be designed and implemented in conjunction with surveys at other wavelengths to maximize the scientific utility of each. Most of the oral presentations are expected to be invited talks of roughly 30 minutes length, with adequate time for stimulating questions and discussion.

As part of this mailing, we are also soliciting Contributed Papers in any area related to the topics covered by the Invited Talks (see accompanying Agenda). The Contributed Papers will be posters, although the Scientific Organizing Committee will select a handful of papers with late-breaking scientific results for inclusion as 15-minute oral presentations. The Contributed Papers will be posted for the entire conference, and a liberal schedule of breaks will permit ample opportunities for individual discussions. We are particularly interested in receiving Contributed Papers in these areas:

- the technical details of missions and programs included as Invited Talks,
- related optical, submillimeter and radio surveys, and
- science topics pertinent to SIRTf's observational capability, including:
 - Brown Dwarfs and Superplanets
 - Planetary and Protoplanetary Debris Disks
 - Ultraluminous Galaxies and Active Galactic Nuclei
 - The Early and Distant Universe.

A conference banquet will be held on Tuesday night, June 23, under the arches of the Beckman Institute on the Caltech campus, and is complimentary for conference registrants. Additional guests are welcome to attend at a cost of \$30 per person. For those who can arrive a day early, we invite you to join us for an excursion to the recently opened (and much publicized) Getty Center museums in Los Angeles on Sunday afternoon, June 21. The enclosed Registration Form solicits your interest in this tour, which will cost \$10 per person. An opening reception, and early on-site check-in, will be hosted at the Pasadena Hilton hotel starting at 6:00 PM on that same Sunday.

In addition to the three-day science conference, an optional one-day SIRTf Workshop will be held on Thursday, June 25 at Caltech's Beckman Institute. This Workshop will focus on the technical capabilities of SIRTf and its three instruments, and will also provide detailed information pertaining to the services and products that will be available at the SSC. The Workshop will also include information about the Legacy Science Program, the opportunities and resources available for Legacy Science teams, and their subsequent responsibilities. There is no fee to attend the Workshop, but the Registration Form requests an indication of your likely attendance so that we can plan accordingly.

To register for the Conference, please complete the enclosed form and mail to the address listed on the form. The registration fee is US\$150.00 through May 15, and US\$175.00 thereafter.

Authors intending to submit a Contributed Paper should complete the electronic Abstract Form prior to April 15, in order to permit its inclusion in the Final Program (see <http://sirtf.jpl.nasa.gov/surveys>). All Invited and Contributed Papers will be published as a conference proceeding. Instructions on the submission of manuscripts will be sent to all early conference registrants.

These are exciting times for infrared astronomy, as we ponder all of the new data becoming available and as we eagerly anticipate SIRTf. We sincerely look forward to seeing you in Pasadena in June!

C. A. Beichman, Chair
Scientific Organizing Committee

M. D. Bica, Chair
Local Organizing Committee

Enclosures:

Conference Poster
Agenda
Logistics Information
Registration Form
Maps: Pasadena and Caltech

Online at <http://sirtf.jpl.nasa.gov/surveys> (only):
Abstract Form for Contributed Papers

LOGISTICS INFORMATION

The following information is provided to assist you with your travel planning and scheduling for the upcoming meeting.

Registration and Check-In

The meeting will begin at 8:30 AM on Monday, June 22, 1998. All general sessions will be at Caltech in Ramo Auditorium. Ramo is centrally located on the Campus, near the student center (see enclosed map). On-site check-in will begin at 7:30 AM at the campus meeting site. Registration is also possible on Sunday night at the Pasadena Hilton hotel, in association with the opening reception, which starts at 6:00pm and includes light food service.

Registration Fees: All participants will be expected to pay a registration fee (\$150.00 through May 15, \$175.00 thereafter). The fee entitles registrants to a copy of the conference proceedings, attendance at the conference banquet and at the opening reception, and the daily food/beverage service breaks. Participants should complete the enclosed Registration Form and mail, with payment, to the address listed on the Form. Make personal checks payable to the California Institute of Technology (or Caltech). No credit cards, purchase orders, or foreign checks or foreign currency please. Foreign participants who wish to pay with US currency or travelers checks once they arrive and check-in locally will not be assessed the late fee for doing so.

Accommodations

Blocks of rooms have been set aside at the following hotels:

Pasadena Hilton
150 South Los Robles
Phone: 626-577-1000 FAX: 626-584-3148
Rate: \$109 + tax
Refer to: "IR Surveys"
Cut-Off Date: May 27, 1998

Pasadena Holiday Inn
303 East Cordova
Phone: 626-449-4000 FAX: 626-796-6209
Rate: \$92 + tax
Refer to: "IR Surveys"
Cut-Off: June 1, 1998

You are responsible for making your own reservations. Note that the two hotels will continue to honor the special rate after their cut-off dates, as long as they have space available. The appropriate reference after the cut-off dates becomes "JPL."

In addition, space is available at the Saga Motor Lodge, 1633 East Colorado Boulevard in Pasadena. (Phone: 626-795-0431, FAX: 626-792-0559, Rate: \$49 + tax. Reference "JPL").

Transportation

The Pasadena area is served by three major airports: Los Angeles International (LAX), Burbank, and Ontario. Hourly airport bus service is available from LAX to the two hotels, with transit time approximately one hour. Catch the bus labeled "Pasadena." There are also several shuttles which provide door-to-door, on-call van service from the airports to Pasadena. Boarding for each is just outside the baggage claim area for all airlines. Purchase tickets from the driver. For further information, call:

Express Bus: 714-938-8900 or 800-772-5299
Super Shuttle: 818-443-6600
Prime Time: 818-504-3600 or 800-262-7433 (outside the LA area)

Taxis and rental cars are also readily available at the airports and in Pasadena. Note: We are considering bus transportation each day to and from Caltech, the Hilton and the Holiday Inn. If you are interested, please indicate on the attached registration form.

Additional Information

For scientific or technical questions pertaining to the conference contact:

Chas Beichman @ IPAC (626-397-7105, chas@ipac.caltech.edu) or
Michael D. Bica y @ JPL (818-354-6958, Michael.D.Bica y@jpl.nasa.gov).

For administrative assistance, contact:

Pat McLane @ JPL (conf.admin@jpl.nasa.gov).

REGISTRATION FORM

Astrophysics With Infrared Surveys: A Prelude to SIRTf

June 22-24, 1998
California Institute of Technology

Name: _____

Name for Badge, if different: _____

Affiliation: _____

Complete Address: _____

Phone No. _____ FAX: _____

e-mail: _____

_____ I would like to attend the SIRTf Workshop on June 25.

_____ I would use the shuttle transportation to/from Caltech and the Hilton and
Holiday Inn each day

_____ I would be interested in touring the Getty Center museums on Sunday, June 21.

Fee Summary:

Conference Registration:	\$150.00/\$175.00 (through May 15/after May 15)
Additional Banquet Guest(s):	\$ 30.00 each
Getty Center Museums Tour:	\$ 10.00

TOTAL _____

Please make checks payable to Caltech. No credit cards, purchase orders, foreign checks or foreign currency can be accepted. Please return your registration by May 15, 1998 to the following address:

IR Surveys Conference
Attn: Pat McLane, Mail Station T-1200
Jet Propulsion Laboratory
4800 Oak Grove Drive
Pasadena, CA 91109

Phone: 818/354-5556; FAX: 818/393-4992
e-mail: conf.admin@jpl.nasa.gov

Agenda
 "Astrophysics with Infrared Surveys: A Prelude to SIRTf"
 1998 June 22-24

21-Jun (Day 0)		Duration	Start	End	
Visit to Getty Center Museums		300	12:00	17:00	
Reception/Early Registration		150	18:00	20:30	
22-Jun (Day 1)					
Session 1: Recent Surveys		Speaker(s)	Duration	Start	End
1.1	Welcoming Remarks & Overview	C. Beichman (JPL/IPAC)	20	8:30	8:50
1.2	SIRTf Introduction	M. Werner (JPL) & B.T. Soifer (SSC/IPAC)	30	8:50	9:20
1.3	Surveys of the Galaxy with MSX and ISO	S. Price (USAF Phillips Lab) & A. Omont (IAP-Paris, France)	40	9:20	10:00
1.4	Spectroscopy of the Galaxy with IRTS	T. Matsumoto (ISAS, Japan)	20	10:00	10:20
	Break		30	10:20	10:50
1.5	Line Surveys with ISO	J.-P. Baluteau (Obs. Marseille, France) & P. Cox (IAS-U. Paris)	40	10:50	11:30
1.6	Line Surveys with SIRTf/IRS	J. Houck (Cornell U.)	30	11:30	12:00
	Lunch		60	12:00	13:00
Session 2: The Galaxy					
2.1	Cooler than M: Class 'L' (Brown Dwarf) Stars	J. D. Kirkpatrick (IPAC)	30	13:00	13:30
2.2	Contributed Papers on Brown Dwarfs & Disks (2)	TBD	30	13:30	14:00
2.3	Gas Phase of the ISM	E. van Dishoeck (U. Leiden, Netherlands)	30	14:00	14:30
2.4	The ISO View of Interstellar Dust	D. Whittet (RPI)	30	14:30	15:00
	Break		30	15:00	15:30
2.5	Problems in Galactic Structure	A. Gould (Ohio St. U.)	30	15:30	16:00
2.6	Contributed Papers on Galactic Structure (2)	TBD	30	16:00	16:30
2.7	Poster Summaries - Part 1	various	30	16:30	17:00

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23-Jun (Day 2)

Session 3: Ongoing Surveys		Speaker(s)	Duration	Start	End
3.1 Overview	M. Malkan (UCLA)	30	8:30	9:00	
3.2 Galactic Science with DENIS & 2MASS	N. Epchtein (Obs. Paris-Meudon, France)	30	9:00	9:30	
3.3 Extra-Galactic Science with 2MASS & DENIS	M. Skrutskie (U. Mass.)	30	9:30	10:00	
3.4 Break		30	10:00	10:30	
3.5 The Hubble Deep Field with HST/NICMOS	R. Thompson (U Arizona)	30	10:30	11:00	
3.5 Mid-IR Surveys with ISO	C. Cesarsky (SAP-Saclay, France)	30	11:00	11:30	
3.6 Surveys with SIRTf/IRAC	G. Fazio (SAO)	30	11:30	12:00	
Lunch		60	12:00	13:00	
Session 4: External Galaxies					
4.1 Normal Galaxies at Low Redshift	G. Helou (SSC/IPAC)	30	13:00	13:30	
4.2 Starbursts and Ultra-Luminous Galaxies	R. Genzel (MPE/Garching, Germany)	30	13:30	14:00	
4.3 Contributed Papers on Galaxies (2)	TBD	30	14:00	14:30	
Break		30	14:30	15:00	
4.4 Active Galaxies	A.F.M. Moorwood (ESO/Garching, Germany)	30	15:00	15:30	
4.5 Contributed Papers on Galaxies (2)	TBD	30	15:30	16:00	
4.6 Poster Summaries - Part 2	various	30	16:00	16:30	
Conference Banquet @ Beckman Institute/Caltech			19:00		

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24-Jun (Day 3)

Session 5: Future Surveys		<i>Speaker(s)</i>	<i>Duration</i>	<i>Start</i>	<i>End</i>
5.1 Problems in Galaxy Formation	E.(N.) Wright (UCLA)	30	8:30	9:00	
5.2 Far-Infrared Surveys with ISO	J.-L. Puget (IAS-U.Paris, France)	30	9:00	9:30	
5.3 The WIRE Survey	P. Hacking (Vanguard)	30	9:30	10:00	
5.4 Surveys with SIRTf/MIPS	G. Rieke (U. Arizona)	30	10:00	10:30	
Break		30	10:30	11:00	
5.5 Panel Discussion: The Future of Surveys	Panel moderated by D. Weedman (PSU)	90	11:00	12:30	
Lunch					
Session 6: Cosmology					
6.1 Large-Scale Structure in the Universe	M. Strauss (IAS, Princeton U.)	30	13:30	14:00	
6.2 Contributed Paper (1)	TBD	15	14:00	14:15	
6.3 The COBE Measurement of the Cosmic IR Backgrou	M. Hauser (STScI)	30	14:15	14:45	
Break		30	14:45	15:15	
6.4 Galaxy Evolution: UV to Near-IR	C. Steidel (Caltech)	30	15:15	15:45	
6.5 Galaxy Evolution: Mid-IR to Submm	C. Lonsdale (WIRE/IPAC)	30	15:45	16:15	
6.6 Contributed Papers (2)	TBD	30	16:15	16:45	
6.7 Conference Summary	M. Harwit	30	16:45	17:15	